

I. Introduction

The United States Bureau of Reclamation (“Reclamation”) is currently preparing a Visitor Services Plan (“VSP”) for the Lake Berryessa Recreation Area (“LBRA”) in Napa County, California. The VSP will focus primarily on: [a] the proposed development and redevelopment of LBRA concession and recreation facilities and infrastructure, and; [b] the expansion of services and facilities that better serve the short term user.

Dornbusch Associates (Dornbusch) was contracted by Reclamation to assist in its VSP planning efforts. Specifically, Dornbusch was engaged to independently evaluate the financial feasibility of VSP draft Alternative B (“Alternative B”); i.e., determine if one or several third-parties would have a reasonable opportunity to realize a profit from investing in and subsequently operating the facility and infrastructure development and redevelopment proposals that comprise the alternative, considering the associated capital and financial, operating and management risks that would be assumed by those parties. The Dornbusch findings are intended to guide Reclamation in its efforts to establish the minimum concessionaire investment and operational responsibilities that should be stipulated in the prospectus(es) that will be issued for the next LBRA concession contract(s).

The purpose of this report is to summarize Dornbusch’s analysis and findings.

It should be noted that the current LBRA concession contracts will expire between 2008 and 2009. Consequently, the next concession contracts, and thus the proposed concession developments/redevelopments examined in this study, are expected to be implemented starting in the 2009 to 2010 period (following inception of the next concession contract(s)). The activities and revenues derived from these new developments are expected to begin one to two years after the inception of the new contract(s), after a period of construction. This report, however, is based only on information/data available up through the middle of 2003. Therefore, and also due to a lack of specific detail regarding the proposed development, supporting infrastructure upgrades specific to those developments, and historical concession operational information, this report is a conceptual-level analysis. Accordingly, the financial conclusions contained herein

will need to be revisited and, if necessary, appropriately adjusted closer to the time that the prospectus(es) for the new LBRA concession contract(s) are to be issued, so that the contract's (or contracts') financial requirements appropriately reflect contemporaneous conditions/information.

II. Executive Summary

This analysis evaluates the financial feasibility of only a subset of the Alternative B proposal, referred to herein as Phase I.

Overall, our analysis (detailed in subsequent sections) indicates that Phase I of Alternative B, as it is presently conceived and based on contemporaneous information, represents a viable business opportunity for a third-party concessionaire; i.e., Phase I is financially feasible. Phase I stipulates full concession development at three of the seven current resort locations at Lake Berryessa, and limited development providing at least lake access at the other four sites. These developments consist of recreation enterprises intended to provide visitors with the opportunity to enjoy all of Lake Berryessa's natural resources, and include a hotel, cabins, RV and tent camping, food and beverage services, retail support, marina slip rentals, houseboat and small boat rentals, and a water-ski center. The feasibility of the remainder of the proposed Alternative B concession developments (Phase II) will need to be evaluated, if and when future visitor demand warrants its implementation.

As a component of Phase I, we assumed that all 1,300 long-term exclusive use trailers would be removed from the current Lake Berryessa concession sites. Accordingly, it was necessary that our analysis, at a minimum, recognize the potentially significant change to Lake visitor usage and spending patterns following a likely shift in the prevailing visitor demographics from long-term trailer tenant to shorter-term visitor. This anticipated transition in visitor demographics, combined with the overall improvement in concession quality and a decrease in concession scale envisioned under Phase I translates to a degree of uncertainty regarding the future demand for concession services at the LBRA. This uncertainty precludes the preparation of accurate demand projections for the concession operation conceived following Phase I implementation.

Absent a reliable basis for projecting actual concession demand, we performed the feasibility study as follows. First, we prepared estimates of the initial (capital development) and ongoing (operating) costs necessary to implement each proposed component of Phase I, such as marinas, cabins, campgrounds, etc., including an allocation for upgrading the supporting infrastructure, where necessary, as defined by engineers. We then developed cash flow models to project these expenditures over an assumed 20-year contract term and back calculated the gross receipts necessary for the concessionaire(s) to achieve a reasonable rate of return on anticipated capital investment in the associated concession facilities and infrastructure (“threshold revenues”). Finally, we evaluated each threshold level of revenues in terms of corresponding necessary concession enterprise occupancy and utilization rates, to determine whether it would be reasonable to expect that the proposed concession developments would experience the level of demand necessary to achieve the threshold level of revenues (and thus financial feasibility) given historical LBRA concession performance and the operating experience of comparable hospitality enterprises near other lakes in the region. This analysis was performed on a conceptual level only, acknowledging the fact that many details will need to be determined and/or updated prior to the issuance of a prospectus for the new concession contract, approximately seven years from the time of this report. Additionally, we recommend that, at some time closer to the time of prospectus issuance, the infrastructure upgrade costs provided by Reclamation as inputs to our analysis be evaluated in greater detail, making them consistent with the probable infrastructure requirements of the specific developments proposed under Phase I.

Table 1 summarizes the estimated capital costs and threshold levels of revenue necessary to achieve financial feasibility, according to proposed Phase I concession development.

Table 1: Costs and Sales Necessary to Achieve a 15% Rate of Return, by Concession Component

(In 2003 dollars. Rounded to the nearest thousand dollars.)

Enterprise	Quantity (# Locations)	Unit	Total Capital Cost¹	Necessary Sales Revenues
Hotel/Motel	30 (1)	Rooms	\$1,335,000	\$465,000
Cabins/Cottages	28 (1)	Units	\$873,000	\$255,000
RV Sites	300 (3)	Sites	\$4,833,000	\$894,000
Tent Sites	250 (2)	Sites	\$1,141,000	\$189,000
Group Tent Sites	3 (1)	Group Sites	\$117,000	\$21,000
Marina (Slips, launch, and fuel)	601 (3) 8 (8)	Slips Ramps	\$6,277,000	\$1,311,000
Houseboats	20	Houseboats	\$4,605,000	\$1,701,000
Other Rentals	36 (2)	Boats	\$1,072,000	\$543,000
Dry Storage	100 (1)	Boats	\$128,000	\$29,000
Restaurant	2 (2)	Restaurants	\$1,058,000	\$725,000
Snack Bar	2 (2)	Snack Bars	\$381,000	\$224,000
Store	3 (3)	Stores	\$813,000	\$601,000
Portable Store	4 (4)	Units	\$177,000	\$108,000
Water Ski Center	1	Center	\$287,000	\$132,000
Total			\$23,093,000²	\$7,198,000

¹ Total Capital Cost includes distributed allocation of infrastructure upgrade costs.

² The sum of the line items do not add exactly due to rounding error.

III. Background

- Lake Berryessa Recreation Area

Lake Berryessa is a man-made reservoir in Napa County, California, managed by the United States Bureau of Reclamation. Lake Berryessa is about 20 miles from the heart of Napa Valley's wine region, 50 miles from San Francisco, and 65 miles from Sacramento. The lake is in a densely populated and relatively affluent area of California. In the year 2000, there were about 6.3 million residents living within about fifty miles of the lake with average household incomes more than 10% above the state average.¹ The lake is one of the largest bodies of fresh water in California, approximately 23 miles long by three miles wide, with 165 miles of shoreline and covering approximately 19,250 surface acres of water when full.

Anglers enjoy Lake Berryessa for its year round availability of rainbow trout, bass, catfish, crappie, and bluegill. In addition to fishing, visitors to Lake Berryessa participate in swimming, water skiing and other boating, picnicking, camping, and generally enjoying the scenic outdoor environment.

According to Reclamation estimates, 1.1 million people visited Lake Berryessa in 2001.² According to one study, about 75% of the Lake's historical visitors resided within about 50 miles of Berryessa in the San Francisco-Bay Area and another almost 20% resided within the Sacramento area. Of the study's nearly 500 respondents, all were residents of California.³ A separate study of Lake Berryessa boaters revealed that over 20% of all boaters on Lake Berryessa live within 25 miles of the lake and therefore might be considered local residents.⁴

¹ United States Census, Summary Tape File 3, 2000.

² The most recently available visitation data is for 2001. Additional historical visitation data for the Lake was either not available or incomplete, such that we were unable to quantitatively evaluate the historical trend in visitation.

³ Lake Berryessa Market Area Survey, James E. Fletcher and Roger H. Guthrie, Survey Research Center California State University, Chico, March 5, 1997.

⁴ A Study of Boater Recreation on Lake Berryessa, California, William Jackson, George Wallace, James Vogel, and John Titre, Colorado State University, 1998.

- Existing Concession Operations

There are at present seven different concessionaires under contract with Reclamation to provide concession services at each of seven separate locations within the LBRA. These concessions provide lake visitors with a range of short-term hospitality and water-based recreation services. They also effectively lease nearly 1,300 sites to private parties, who have installed mobile homes, travel trailers and even made improvements to the sites for their own long-term exclusive use. During the last several years, the seven LBRA concessions realized an average combined annual gross income of \$12.7 million (in 2003 dollar terms), nearly 40% of which (about \$5 million) derived from rental fees for long-term exclusive use trailer sites.

The following concession hospitality/marina facilities are currently operating at the LBRA:

- **Lodging:**

- Motel Rooms: 52 rooms (two concession sites);
- Cabins: 57 temporary 'park models' (four concession sites);
- Camping:
 - Tent Camping: 448 sites (at five of the concession sites);
 - RV Camping: 212 sites, 137 of which have full hook-ups (at six of the concession sites);

- **Marina:**

- 1,349 boat slips (at all seven of the concession sites);
- 8 private launch ramps (at all seven of the concession sites);
- 6 fueling stations (at six of the concession sites);

- **Food/Retail:**

- Four restaurants (at three of the concession sites);
- Two snack bars (at two of the concession sites);
- Ten retail outlets (at all seven of the concession sites);

- **Other:**

- One water ski course (one concession site).

The quality and condition of the LBRA concessions vary by location and operational component. Overall, with the exception of the Steele Park Resort, the LBRA concessions are in generally poor condition and in violation of various safety codes. The safety code violations are associated

with, among other factors, hazardous electrical systems, the close proximity of sewage ponds to camping facilities, and excessive congestion in long-term trailer, tent, and RV camping areas. Additionally, many of the concession buildings are in very poor condition, with cracked and sagging walls and widespread deferred maintenance. According to a 1999 survey, the majority of Lake Berryessa surveyed visitors rated the scenery, convenience, boating, and cleanliness at Berryessa as good or excellent (the top two ratings on scale of five). However, the majority of visitors did not rate accommodations, restaurants, RV camping, tent camping, fishing, hiking/biking trails, or security at Lake Berryessa as good or excellent.⁵ The high ratings of Lake Berryessa's natural resources suggest a potential for concessions to better capitalize on these resources with higher quality concessions. Accordingly, a substantial increase in concession quality, safety, and aesthetics is a primary objective of Alternative B.

- Proposed Concession Operations (VSP Alternative B) and Phased Development

In February 2003, Dornbusch prepared a financial evaluation of Alternative B assuming the alternative's capital program would be fully implemented starting in 2009 to 2010. The analysis indicated that Alternative B would not represent a viable business opportunity if the underlying concession contract(s) stipulated that the concessionaire(s) would have to fund all of the associated capital investment requirements. This conclusion was due in large part to the substantial amount of uncertainty in the future level and nature of visitor demand for concession services within the LBRA. (See Section IV for a discussion of demand.) Accordingly, the analysis summarized in this report examined the concession business opportunity conveyed by Alternative B assuming that potential concessionaires would be required only to develop some reasonable subset of the alternative's plan components (Phase I), with the flexibility to later implement the remaining components as demand and financial performance warranted (Phase II). This phased approach effectively reduces the minimum facility/infrastructure development requirements that would be stipulated in the concession contract prospectus(es), which should have several benefits. First, it would likely result in a larger pool of potential concessionaires bidding on the contract opportunity(ies) (enhancing competition for the contract(s), and potentially resulting in better financial terms for the government, all else equal). Also, and

⁵ Lake Berryessa Survey Results Data Tables, Constat, Inc., May 1999.

especially important, a phased development approach will reduce the risks associated with the uncertainty in visitor concession demand, thus increasing the probability that the selected concessionaire(s) will achieve financial success and thereby sustain long term visitor services.

Implementation of the new, phased Alternative B would result in significant scale and quality changes to concession activities at Lake Berryessa early during the next concession contract(s). Among its other elements, Alternative B includes the development of new high-quality concession facilities to provide short-term visitors with a range of appropriate goods and services, stipulates the removal of *all* long-term, exclusive-use trailers from the LBRA, and stipulates initial redevelopment at three of the existing concession sites (comprising a combination of lodging, food & beverages, retail support, and extensive marina services, including houseboat rentals), but only basic services (lake access with few or no ancillary facilities) at the other four sites. The remaining Alternative B prescriptions for the latter four sites would be implemented if and when future visitor demand warranted (Phase II).

The type and scale of the development components proposed under Phase I are summarized below. These characterizations were prepared based on a combination of the facility concepts contained in the VSP Alternative B descriptions provided by Reclamation, marina upgrade cost estimates provided by Reclamation, industry standards (such as average size of small retail stores), and interviews with operators of concession facilities at other California lake recreation areas.⁶ We did not offer assumptions regarding the scale of potential Phase II facilities for this analysis, since that determination will *only be necessary when demand indicates expansion* of the concession(s) beyond Phase I is warranted.

- **Markley Cove**

- **Phase I:**

- Houseboat and other boat rental operation, including pump-out capabilities. Assuming 20 houseboats, 10 speed boats, and 8 personal watercrafts (PWC's);
 - Marina slip rental, launching capabilities, marina fuel, and a fish-cleaning station. Assuming 173 slips;

⁶ Interviewed operators of lakeside concessions at Lakes Mead, Mojave, Roosevelt, Shasta, and Don Pedro. Discussed lodging, marina, food & beverage, and retail operations.

- Retail support.
- **Pleasure Cove**
 - **Phase I:**
 - RV sites with full hook-ups; assuming 100 sites;
 - Tent sites (both traditional and secluded); assuming 150 sites;
 - Marina slip rental, launching capabilities, marina fuel, and a fish-cleaning station; assuming 200 slips;
 - Retail support;
 - Food and beverage services (restaurant and simple café).
- **Steele Park**
 - **Phase I:**
 - Hotel/motel; assuming 30 rooms;
 - Cottages (cabins); assuming 28 units (7 four-unit cottages, similar to what exist now);
 - RV sites with full hook-ups; assuming 100 sites;
 - Marina slip rental, launching capabilities, boat rentals, and marina fuel; assuming 228 slips;
 - Retail support;
 - Food and beverage services (restaurant and snack bar).
- **Spanish Flat (Phased Development)**
 - **Phase I:**
 - Marina launching capabilities;
 - Limited retail space.
 - **Potential Phase II:**
 - Marina slip rental, launching capabilities, marina fuel, and a fish-cleaning station;
 - Cabins;
 - Tent sites;
 - Retail support;
 - Food and beverage services (restaurant only).

- **Lake Berryessa Marina (Phased Development)**

- **Phase I:**

- Marina launching capabilities;
 - Limited retail space.

- **Potential Phase II:**

- Marina slip rental, launching capabilities, marina fuel, and a fish-cleaning station;
 - “Rustic chic” cabins;
 - RV sites with full hook-ups;
 - Retail support;
 - Food and beverage services (restaurant and snack bar).

- **Rancho Monticello (Phased Development)**

- **Phase I:**

- Tent sites; assuming 100 sites;
 - RV sites; assuming 100 sites;
 - Marina launching capabilities;
 - Limited retail space.

- **Potential Phase II:**

- Tent sites;
 - RV sites;
 - Cabins;
 - Youth/elder hostel;
 - Short-term marina slip rental, launching capabilities, marina fuel, and a fish-cleaning station;
 - Retail support;
 - Food and beverage services (restaurant and snack bar).

- **Putah Creek (Phased Development)**

- **Phase I:**

- Group camping;

- Marina launching capabilities;
- Limited retail space.
- **Potential Phase II:**
 - Lodge;
 - Group and event camping;
 - Tent sites;
 - Group support RV sites;
 - Short-term marina slip rental, launching capabilities, marina fuel, and a fish cleaning station;
 - Canoe/kayak ramp;
 - Retail support;
 - Food and beverages services (restaurant and snack bar).
- **Capell Cove**
 - **Phase I:**
 - Launch ramp.

IV. Methodology

The following analysis focuses only on the Alternative B components that the next concessionaire(s) would presumably be required to implement (Phase I). Discounted cash flow/rate of return models (“cash flow models”) were constructed to evaluate the financial feasibility of each of the operational components of the Phase I concession development or redevelopment plan elements. These models present schedules of the projected future cash receipts and cash disbursements associated with an income-generating property that represents the proposed concessions. Prospective developers/operators of the LBRA concessions would likely use the same type of analysis to evaluate the financial opportunity conveyed by the eventual concession prospectus(es) in formulating their contract bids. The cash flows presented in this study reflect a steady-state condition, meaning that the models represent the projected cost and revenue structures, and subsequent feasibility, of the proposed Phase I concession development program following the post-construction ramp-up period.

Estimating demand, and thus projecting sales, is generally the most difficult task in a financial feasibility assessment. This is particularly true of Alternative B because the alternative includes extensive physical and operational changes to the current concessions. As such, historical data on LBRA visitor demand for concession services provides limited insight into future demand for Phase I of the Alternative B conditions. (In a more typical situation where commercial operations would only be moderately altered, data permitting, future demand could be extrapolated from historical experience with reasonable confidence.) But, Alternative B calls for the elimination of all remaining (nearly 1,300) long-term exclusive-use trailers that currently generate a substantial portion of the existing concession revenues. In addition to trailer rental fees, long-term trailer tenants account for some amount of revenue at other concession profit centers, particularly long-term boat storage.⁷ It is not clear whether current long-term trailer tenants will return to Lake Berryessa as short-term visitors or the extent that these visitors will be replaced by other visitors attracted to the changed experience and opportunities at the lake.

Therefore, the removal of long term exclusive use trailers and concurrent refocusing of the concession operations on short-term visitors with substantial improvements in service quality will not only change the nature of the concessions themselves but most likely the characteristics and spending behavior of Lake Berryessa visitors. It is likely that the improvements in quality will attract a clientele with more disposable income than the current concessions attract, and it is additionally possible that the new concessions will access the nearby Napa Valley's relatively affluent visitor base (which is not yet the case).⁸ Thus, it cannot be assumed that the spending habits of future day-only and short-term overnight visitors to the lake would be similar to the spending habits of current long-term trailer tenants, nor can historical spending data for current short-term visitors be used to accurately infer the potential visitor spending effects from substantial improvements in concession quality. In contrast, it seems likely that per capita spending would increase in Alternative B over the current operations.

⁷ In interviews, various current concessionaires estimated that between 10% and 90% of their boat slips were occupied by long-term trailer tenants. Revenues at other concession components are significantly less dependent on long-term trailer tenants, as these tenants tend to bring their provisions with them.

⁸ According to the Napa Chamber of Commerce, the mean household income of Napa visitors is \$53,500, compared to the 1999 California statewide median income of \$47,500.

There are four widely adopted approaches for estimating demand for new recreation and lodging facilities and services. These approaches are based on personal interview surveys, statistical modeling, observation of community participation, and evaluation of community need. However, we concluded that none of the approaches were appropriate to estimate demand for concession services under Alternative B. The methods include:

- Survey-Based Approach - A survey-based approach was not used because survey-based demand analysis risks serious bias; i.e., people do not necessarily do what they say they would do when posited a hypothetical change in opportunity. Nonetheless, data from past surveys administered at the LBRA, which focused primarily on visitor recreation preferences, helped to guide us in evaluating the potential effects on visitation and visitor spending behavior of the proposed commercial service changes.
- Statistical Analysis - A statistical analysis approach was not used because historical visitation data for existing concessions at other lakes was insufficient to develop a statistically accurate regression model. Ideally, such an analysis would relate lake and concession visitation to specific concession facility, recreation opportunities, and demographic characteristics, among other potential explanatory factors.
- Participation Rate - A participation rate approach was not used due to a lack of available data on Lake Berryessa market-area community participation in lake recreation and lodging, and the difficulty of making appropriate assumptions for implementing this approach, such as identifying the current utilization of existing lake recreation resources by the populations within the primary market areas.
- Supply Approach - A supply approach was not used because it assumes for analytic purposes that the need for the proposed facilities and services are so great that it is reasonable to expect the facilities to operate at capacity. Research revealed that while demand for lake recreation within the LRBA region is strong, evidence was insufficient to suggest that it exceeds the supply of lake recreation resources; particularly since any definition of recreation supply is highly subjective.

We therefore concluded that the ground-up development of accurate demand estimates for the concession facilities and services proposed under Alternative B would not be viable. Accordingly, we used a different approach. We began the feasibility analysis by developing reasonable estimates of the initial (capital development) and ongoing (operating) costs necessary to implement each component of the proposed Phase I of Alternative B (e.g., marinas, hotels, restaurants, house boat rental operation, etc.). We then developed cash flow models that projected annual expenditures over a 20-year term and back calculated the gross receipts required to achieve an appropriate rate of return on capital invested. (Our assumption on the target rate of return is discussed in Section V). In our cash flow models, we also accounted for capital expenditures related to the following:

- A Reserve Account for Facilities Improvement (RAFI) to pay for necessary cyclical future replacements of facility components with relatively short economic useful lives. Such replacements would include roof covers, floor covers, certain HVAC components, etc.
- The end-of-contract Capital Investment Recovery (CIR) based on the acquisition/construction costs of the assets less depreciation and accounting for inflation. The CIR is intended to provide compensation to concessionaires for the remaining value of improvements they either purchased from a previous concessionaire or funded during their contract term (including RAFI related spending).⁹

Based on the models' indications regarding the revenue required to achieve financial feasibility, and research-drawn assumptions on market level rates within the LBRA region for goods and services comparable to those that would be provided by the LBRA concessions (e.g. hotel room rates, houseboat rent rates, etc.), we derived estimates of the visitor demand necessary to achieve

⁹ Estimations for the useful life, and thus capital investment recovery (CIR), for the infrastructure improvements were estimated based on Marshall & Swift Estimation Service construction data and interviews with industry experts.. Note that since the infrastructure improvements were presented to us only as aggregated costs, the economic life estimates should be viewed as general estimates only.

financial feasibility (“threshold demand”). The probability of achieving this threshold demand, and thus the overall feasibility of Phase I of Alternative B, was then evaluated in the context of:

- Historical Berryessa visitation and Berryessa concession operations;¹⁰
- Financial performance (and implicit demand) at similar concession enterprises at comparable lakes;
- Interviews with resort managers at similar lakes regarding concession operations; and
- Trends in regional boating, demographics, and tourism.

V. Assumptions

The financial feasibility of the proposed Phase I of Alternative B was analyzed using the following assumptions:

- **Single Concession Contract:** In our analysis, we assumed that Reclamation would grant one concession contract to develop and operate all seven resort sites at LBRA. This assumption is acceptable to Reclamation as a component to help assure feasibility and allowed us to combine concession components and analyze the overall business opportunity.
- **20-Year Contract:** This relatively long term was selected to provide prospective concessionaires with ample opportunity to realize a reasonable opportunity for profit on their investment, especially in light of the anticipated scale of that investment (even assuming a phased development approach), the substantial uncertainty regarding future visitor demand, and the potential initial adverse revenue effects of removing long-term exclusive use trailers.

¹⁰ As noted in the beginning of this section, historical local spending data cannot be used to predict future spending, because of the substantial change to the nature and quality of the concessions services proposed in the Preferred Alternative. Instead, historical visitation and operations data were used to help assess the reasonableness of the threshold demand.